

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated June 13, 2007. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1-14 stand for consideration in this application, wherein claims 1-2, 4-5 and 9-14 are being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention. All amendments to the application are fully supported therein. Particularly, support for amendments of claims 1, 4 and 10 may be found throughout the specification, including but not limited to page 13, lines 3-14; page 14, lines 13-16; page 16, line 13 to page 17, line 23; page 22, line 9 to page 24, line 5 of the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formal Rejections

Claims 1-14 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Claims 1-11 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-7 and 10-11 are being amended as set forth above to meet the requirements under 35 U.S.C. §112, first and second paragraphs. Accordingly, withdrawal of this rejection is respectfully requested.

Prior Art Rejections

Claims 1-14 were rejected under 35 U.S.C. §102(e) as being anticipated by Probert, Jr. et al. (U.S. Pat. 6,549,918). Applicants respectfully traverse this rejection for the reasons set forth below.

The present invention as recited in claim 1 is directed to a file sharing method in a storage system, the storage system having a controller and a plurality of disk drives for sharing a file stored in the storage system, and being connected to a first host computer and a

second host computer, the first host computer being operatively connected to communicate with the second host computer via a local area network, the storage system being operatively connected to each of the first host computer and the second host computer via a storage area network, the first host computer using a first operating system for managing files using a first format and first file management information, the second host computer using a second operating system for managing files using a second format different from the first format and second file management information, and the storage system storing the first file management information when the file to be shared is stored in the storage system, the first file management information including information of a location of a disk area where the file to be shared is allocated by the first operating system, the second file management information including information of a disk area location capable of being managed by the second operating system. The method comprises the steps of: receiving at the controller a host ID of the second host computer; determining via a host table of the controller a conversion for the second host computer to manage the file to be shared; converting the first file management information into the second file management information; and reading data corresponding to the file to be shared on the basis of the second information from the disk drives by the second host computer.

As recited in claim 4, the present invention is directed to a storage system that is connected to a first host computer and a second host computer, the first host computer using a first operating system for managing a file to be shared using a first format and first file management information, and the second host computer using a second operating system for managing files using a second format different from the first format and second file management information, the first host computer being operatively connected to communicate with the second host computer via a local area network, the storage system being operatively connected to each of the first host computer and the second host computer via a storage area network, the storage system storing the first file management information when the file to be shared is stored in the storage system, the first file management information including information of a location of a disk area where the file to be shared is allocated by the first operating system, the second file management information including information of a disk area location capable of being managed by the second operating system. The storage system comprises: a plurality of disk drives for storing data therein; and a disk controller comprising an interface for connecting to the first host computer and the second host computer, and an interface for connecting to the plurality of disk drives. The disk controller comprises: a means for receiving a host ID of the second host computer and

determining a conversion for the second host computer to manage the file to be shared by the second operating system including a host table; means for converting the first file management information into the second file management information; and a means for reading data corresponding to the file to be shared on the basis of the second information from the disk drives when an access request to access the file to be shared is issued from the second host computer.

Further, the present invention as recited in claim 10 is directed to a storage system that is connected to a first host computer and a second host computer, the first host computer being operatively connected to communicate with the second host computer via a local area network, the storage system being operatively connected to each of the first host computer and the second host computer via a storage area network, the first host computer using a first operating system for managing a file to be shared using a first format and first file management information, the second host computer using a second operating system for managing files using a second format different from the first format and second file management information, the storage system storing the first file management information when the file to be shared is stored in the storage system, the first file management information including information of a location of a disk area where the file to be shared is allocated by the first operating system, the second file management information including information of a disk area location capable of being managed by the second operating system. The storage system comprises: a plurality of disk drives for storing data therein; and a disk controller comprising an interface for connecting to the first host computer and the second host computer, and an interface for connecting to the plurality of disk drives. The disk controller mirrors the file to be shared, which is stored in any one of the plurality of disk drives and is managed under the first operating system, in another disk drive of the plurality of disk drives. The disk controller converts via a host table the first file management information into a corresponding second file management information to write the corresponding second file management information into the another disk drive; and the disk controller reads the file to be shared from the another disk drive when an access request to access the file to be shared is issued from the second host computer.

In contrast, Probert merely shows in Fig. 2 that a filter driver interfaces with a native file system 234 which stores data in a multi stream format on secondary storage 236, which comprises virtual or physical disks or other type of persistent storage and the native file system 234 is provided by Microsoft® WindowsNT® 5.0 and supports multiple formats for document files. In other words, Probert only relates to a conventional structure and operation

wherein one version of an application on a single computer or a computer interacting with a network all operating on the same OS (i.e., Windows NT 5.0) needs to access a file that is formatted for a different version of the application or a different version of the OS (i.e., the “non-Windows NT 5.0”). The filter driver allows the file to be accessed by the application even if the file is formatted for another version.

Probert does not show or suggest, either explicitly or implicitly, among other features, a file sharing method in a storage system, the storage system having a controller and a plurality of disk drives for sharing a file stored in the storage system, and being connected to a first host computer and a second host computer, the first host computer being operatively connected to communicate with the second host computer via a local area network, the storage system being operatively connected to each of the first host computer and the second host computer via a storage area network, the first host computer using a first operating system for managing files using a first format and first file management information, the second host computer using a second operating system for managing files using a second format different from the first format and second file management information, and the storage system storing the first file management information when the file to be shared is stored in the storage system, the first file management information including information of a location of a disk area where the file to be shared is allocated by the first operating system, the second file management information including information of a disk area location capable of being managed by the second operating system.

Further, Probert does not show or suggest any process or method that comprises the steps of: receiving at the controller a host ID of the second host computer; determining via a host table of the controller a conversion for the second host computer to manage the file to be shared; converting the first file management information into the second file management information; and reading data corresponding to the file to be shared on the basis of the second information from the disk drives by the second host computer, all as recited in at least claim 1. Probert similarly fails to disclose or suggest any structure or steps similar to those recited in at least claims 4 and 10.

Therefore, since Probert cannot and does not show each and every element as recited in at least independent claims 1, 4 and 10, Probert cannot anticipate the present invention as claimed. Rather, the present invention as claimed is distinguishable and thereby allowable over Probert.

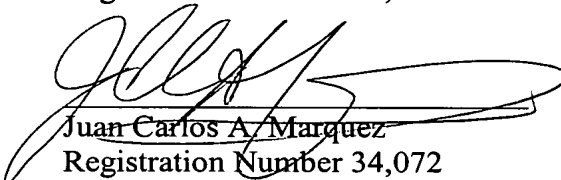
Conclusion

In view of all the above, Applicants respectfully submit that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344



Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive
Suite 1400
Falls Church, Virginia 22042
(703) 641-4200
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SPF/JCM/